



# VTeen 4-H Science Pathways Café



## Precision Genomics Medicine and Diagnostics

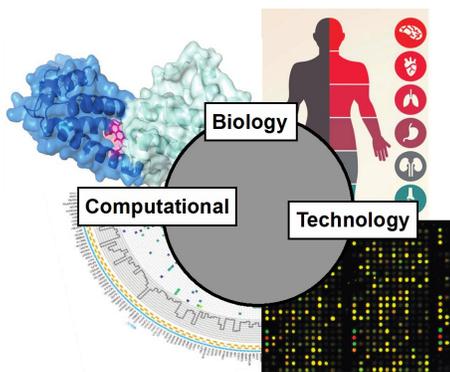
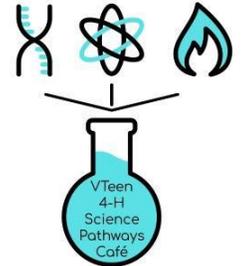
Saturday, March 19, 2022, 5:00-7:00 pm, UVM Davis Center, Mansfield Dining Room

FREE pizza and drinks; Open to all youth in grades 7-12

Register@ [www.uvm.edu/extension/youth/announcements](http://www.uvm.edu/extension/youth/announcements)

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**Face Mask Requirements:** Everyone is required to wear face coverings over their nose and mouth when inside UVM buildings, regardless of vaccination status. All users of UVM buildings must continue to monitor themselves for symptoms of COVID-19 and not come to campus, nor participate in UVM in-person activities, if they are experiencing symptoms or have tested positive for COVID-19 in the past 10 days.



The first complete draft of the human genome was finished in 2003, initiating a period of rapid advancement in our knowledge of the role of genomic variation in human disease. Developments in next generation DNA sequencing technologies has laid the framework for expanding genetic research and has opened up an entire industry of new diagnostic applications. Notable new diagnostic tests are now being widely used in the clinical setting and are contributing to our understanding of diverse diseases. In particular, various sequencing-based applications are aiding in the understanding of the pathogenesis and progression of human diseases including infectious disease and cancer. Genomic sequence analysis can

inform distinctive responses to drugs (pharmacogenomics) and the various mechanisms underlying different types of cancer. Genomic knowledge therefore permits more personalized health care as sequencing-based analytical approaches are becoming increasingly relevant to all medical and biomedical professionals. Educating the next generation of physicians, pathologists, biomedical, and laboratory scientists will be instrumental in the workforce development necessary for the continued delivery and advancement of genomic medicine. Come to this café to learn more and engage in some hands-on activities!

### ABOUT OUR SPEAKER

**Seth Fietze, PhD** is an associate professor in the Department of Biomedical and Health Sciences at the University of Vermont (UVM) and program leader at the UVM Cancer Center. Research in his Genomics and Epigenetic laboratory at UVM is aimed at understanding the molecular mechanisms of breast cancer and leukemia and seeks to identify targets for developing new treatments.

**What is a Teen Science Café?** It is a free, fun way for teens to explore science, engineering and technology with local scientists, engineers and technology experts. Teens participate in informal discussions and hands-on activities to learn about different topics. And, there is always free food! Planned and run by teens for teens.

**Questions?** Contact [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu)

*To request a disability-related accommodation to participate in this program, please contact the 4-H Office at 802-888-4972 or [lauren.traister@uvm.edu](mailto:lauren.traister@uvm.edu) by February 29, 2022 so we may assist you.*



[www.uvm.edu/extension/youth](http://www.uvm.edu/extension/youth)